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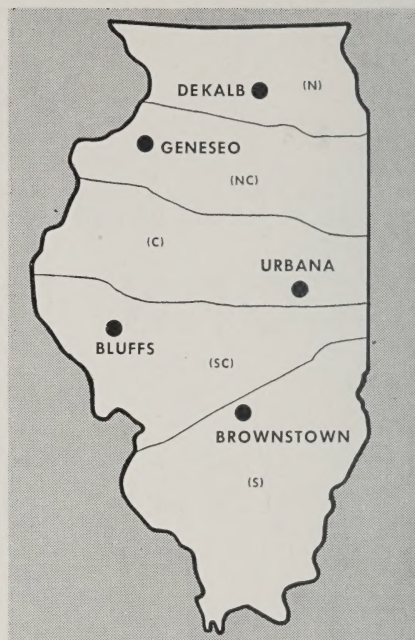
Experimental **CORN HYBRIDS**

1950 TESTS

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Bulletin 543 · UNIVERSITY OF ILLINOIS
AGRICULTURAL EXPERIMENT STATION

Location of regular
experimental-hybrid
test fields
(Lebanon, used for
the first time in 1950,
is not shown)



CONTENTS

	PAGE
MEASURING PERFORMANCE.....	75
MATERIAL TESTED.....	76
RESULTS OF THE TESTS.....	79
HYBRID NUMBERS, PEDIGREES, AND INDEX (Table 2).....	81
NORTHERN ILLINOIS (Tables 3 and 4).....	84
NORTHERN AND NORTH-CENTRAL ILLINOIS (Tables 5, 6, and 7).....	86
NORTH-CENTRAL, CENTRAL, AND SOUTH-CENTRAL ILLINOIS (Tables 8, 9, 10, and 11).....	90
SOUTH-CENTRAL AND SOUTHERN ILLINOIS (Tables 12 and 13).....	95
PERFORMANCE OF LINES IN SINGLE CROSSES.....	98

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EXPERIMENTAL CORN HYBRIDS

1950 TESTS

By L. F. BAUMAN, R. W. JUGENHEIMER, C. M. WOODWORTH,
D. E. ALEXANDER, and BENJAMIN KOEHLER¹

THIS REPORT summarizes the results of tests of experimental corn hybrids conducted in 1950 by this Station. Trials were made at six locations: in DeKalb county in northern Illinois, in Henry county in north-central Illinois, in Champaign county in central Illinois, in Scott county in south-central Illinois, and in Fayette and St. Clair counties in southern Illinois. These six locations are representative of the soil, rainfall, and length of growing season found in different sections of the state.

In these tests 428 hybrids were compared for yield, maturity, resistance to lodging, and other agronomic characters. Only hybrids of similar maturity were tested on the same field. A familiar hybrid whose maturity was considered the standard for the group is included in each table heading.

Since most of the hybrids whose performance is recorded here are not yet in commercial use, the information about them is of most value to those producers of hybrid seed who are on the alert for new, improved hybrids for their customers.

The 1950 performance of hybrids available in commercial quantities to Illinois farmers is reported in Bulletin 544 of this Station.

MEASURING PERFORMANCE

All plots in these tests were planted and thinned by hand in fields prepared in the usual way for corn. Six kernels were planted in hills spaced 40 inches apart. Three plants per hill were left at Urbana, Brownstown, Lebanon, and DeKalb; four plants per hill were left in all other tests. Plots at most locations were 2×5 hills, with the exceptions noted in Table 1. All entries were replicated and arranged in a randomized block design.

General information concerning the tests is given in Table 1, including dates of planting and harvesting, and other general data.

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Data from all plots are included in the results. The only correction for imperfect stands was the following adjustment for missing hills:

$$\text{Corrected weight} = \text{Field weight} \times \frac{\left(\frac{\text{Number of hills}}{\text{per plot}} \right) - \left(\frac{0.3 \times \text{Number of missing hills}}{\text{per plot}} \right)}{\left(\frac{\text{Number of hills}}{\text{per plot}} \right) - \left(\frac{\text{Number of missing hills}}{\text{per plot}} \right)}$$

This adjustment adds 0.7 of the average hill yield for each missing hill, and assumes that 0.3 is made up by the increased yield of surrounding hills.

Table 1.—GENERAL INFORMATION: Tests of Illinois Experimental Corn Hybrids, 1950

County ^a	Section of state	Number of hills per plot ^b	Plants per hill	Date of—	
				Planting	Harvesting
DeKalb.....	Northern	10	3	May 23	November 17
Henry.....	North-Central	10	4	May 15	October 27
Champaign.....	Central	16	3	May 18	November 24
Scott.....	South-Central	10	4	May 12	October 12
Fayette.....	Southern	10	3	May 26	November 10
St. Clair.....	Southern	20	3	May 23	December 6

^a The fields are located near the following cities and towns: in DeKalb county near DeKalb, in Henry county near Geneseo, in Champaign county near Urbana, in Scott county near Bluffs, in Fayette county near Brownstown, and in St. Clair county near Lebanon.

^b Exceptions: northern Illinois data in Table 6 and north-central data in Table 10 were from single-hill plots.

Double-cross hybrids are listed in the tables in the order of their yield. Acre-yields are reported as shelled grain containing 15.5 percent moisture, the maximum allowable for No. 2 corn. To determine the shelling percentage and moisture percentage, the corn from one replication of each entry at each location was shelled. Percentage of moisture in the shelled grain was obtained with a Steinlite moisture meter.

Erect plants at harvest and stand were determined from actual counts on all replications of each test for which such data are presented. Plant and ear heights are recorded in feet and inches respectively.

MATERIAL TESTED

One hundred forty-three different double crosses and 270 single crosses were grown on the six test fields. The Illinois hybrids were developed by members of the Plant Breeding division of the University of Illinois Agronomy Department. The seed was produced by controlled hand-pollination.

The University does not produce hybrid seed corn in commercial quantities. If a hybrid gives satisfactory performance, the parental lines are released for use by seedsmen. Hybrids that include new inbred lines are produced under the "delayed release" program adopted by most of the states in the corn belt. Delayed release enables the Experiment Station to control the use of the new line during the early years of its commercial utilization. Multiplication of a new line is handled by the Station and the production of single crosses in quantity is handled by the Illinois Seed Producers Association. After a satisfactory probationary period of two to five years, a new line is released to the public.

Table 2 lists the hybrids whose performance is shown in this report and the tables in which each appears. It also contains the pedigrees of the Illinois Agricultural Experiment Station and U. S. hybrids tested. In the pedigrees the order of the single crosses and of the lines in the single crosses has no significance; it does not indicate which should be used as seed or pollen parent in the production of a hybrid.

Illinois yellow hybrids are numbered consecutively below 2000, while white hybrids are numbered in the 2000 series. Illinois white hybrid numbers usually are followed by the letter "W."

The letter "A" or "B" following an Illinois hybrid number indicates that the combination of inbred lines making up the hybrid has been rearranged or "permuted." For example, if the original pedigree of an Illinois hybrid is $(1 \times 2) (3 \times 4)$, the letter "A" following the number means that the hybrid was put together $(1 \times 3) (2 \times 4)$, the letter "B," $(1 \times 4) (2 \times 3)$. A difference in reciprocals is not recognized in this method. When a short dash (—) followed by a number occurs as a part of an Illinois hybrid number, it means that a tested related line has been substituted for one of the inbred lines included in the original hybrid.

Six sets of single crosses differing in maturity were tested in 1950. Three of these sets are a part of the "Uniform" tests conducted cooperatively by corn belt states, including Illinois, and the U. S. Department of Agriculture. Seed of the unreleased inbred lines involved in these crosses was contributed by the state or federal corn breeder who developed them. The following individuals formed the committees for collecting inbred seed, making the crosses, and distributing seed of the single crosses reported in Table 3: E. C. Rossman (Michigan), E. L. Pinnell (Minnesota), and N. P. Neal (Wisconsin); and for those in Tables 7, 8, and 10, J. H. Lonnquist (Nebraska), G. F. Sprague (Iowa), and G. H. Stringfield (Ohio). M. T. Jenkins (U. S. Department of Agriculture) and M. S. Zuber (Missouri) are responsible for summarizing the data from the individual workers, making predictions, and mimeographing a report.

The other three single-cross sets were made up by the Illinois Station and tested only in Illinois. Data from these three sets are reported in Tables 6, 11, and 13.

Performance of single-cross hybrids is of interest to corn breeders, producers of hybrid seed corn, and to farmers. Characteristics of single crosses, such as yield, standability, seed size, shape, and quality, definitely affect the practical production of hybrid seed corn. Some farmers are interested in growing single-cross hybrids commercially because of their attractive appearance and extreme uniformity. Use of single-cross data for the prediction of desirable double crosses creates additional interest in the performance of single crosses.

Making and testing all possible hybrid combinations among available lines is a tremendous task. For example, 1,225 single crosses and 690,900 double crosses are possible with 50 inbred lines. But by using single-cross performance data the corn breeder can predict which of the many possible double-cross combinations are likely to be most desirable. The usual procedure in making predictions is method "B" proposed by Dr. M. T. Jenkins.¹ The following six single crosses can be made with four inbred lines: $A \times B$, $A \times C$, $A \times D$, $B \times C$, $B \times D$, and $C \times D$. In method B, the average performance of the four non-parental single crosses gives the predicted performance of a specific double-cross hybrid. For instance, the average yields of the four single crosses, $A \times C$, $A \times D$, $B \times C$, and $B \times D$, give the predicted yield of double cross, $(A \times B) (C \times D)$.

The procedure in predicting "acre yields" of two hybrids is shown below. Single-cross data are taken from Table 8.

(M14 \times WF9) (K159 \times Oh45)		(M14 \times WF9) (I.205 \times CI.187-2)	
M14 \times K159.....	99	M14 \times I.205.....	104
M14 \times Oh45.....	105	M14 \times CI.187-2.....	102
WF9 \times K159.....	88	WF9 \times I.205.....	96
WF9 \times Oh45.....	118	WF9 \times CI.187-2.....	85
	4) 410.0		4) 387.00
	102.5		96.75

Similar predictions can be made for other characteristics.

Prediction studies are an extremely valuable part of a research program. By this method, corn breeders are able to obtain the better combinations without making and testing thousands of undesirable crosses. Predicted hybrid combinations, however, should always be thoroughly tested under field conditions before being put into commercial production.

¹ Jenkins, M. T. Methods of estimating performance of double crosses of corn. Jour. Amer. Soc. Agron. 26, 199-204. 1934.

RESULTS OF THE TESTS

Data obtained from the tests are summarized in Tables 3 to 14. Two-, three-, and four-year averages are more reliable indexes of the performance of hybrids than a single year's result. Therefore the parts of the tables summarizing the results of two or more years deserve the most weight when the results are studied.

Relative performance cannot be determined with absolute accuracy by any method of testing. Small differences between entries are seldom of any significance. In fact, small differences are to be expected among plots planted even with the same lot of seed. Variations in growing conditions, such as soil fertility, are only reduced, not completely eliminated, by replicating the same hybrid several times in the same test. Unavoidable variation may be determined by a mathematical procedure known as "analysis of variance." From this procedure a figure is obtained that represents the number of bushels by which two entries must differ in yielding ability before they can be considered significantly different. Note, for example, in Table 4A that unless any two entries differ by at least 5 bushels per acre there is no statistical difference between them in yielding ability. Thus Ill. 1280 can be considered higher yielding than Ill. 101 and Ill. 751, but not higher than Ill. 1277 or Ill. 1281.

Double crosses. The following double crosses were average or better in yield, maturity (as measured by the percent of moisture in the grain), and standability:

Northern Illinois

Table 3B — Ill. 1585, Ill. 1584, Ohio W64, Ill. 1579

Table 4A — Ill. 1277, Ill. 1281

Table 4B — Ill. 1493, Ill. 1277

Table 4C — Ill. 1585, Ill. 1586, Ill. 1279, Ill. 1281, Ill. 1584

Northern and North-Central Illinois

Table 5A — Ill. 1277, Ill. 1289

Table 5B — Ill. 1277, Ill. 1289

Table 5C — Ill. 1277, Ill. 1289, Ill. 1559B, Ill. 1560A, Ill. 1555A, Ill. 1557

Table 5D — Ill. 1575

Table 5E — Ill. 1559B, Ill. 1289, Ill. 1560A, Ill. 1557, Ill. 1290, Ill. 1375,

Ill. 1609, Ill. 1277, Ill. 1555A, Ill. 1280, Ill. 1279, Ill. 1595, Ill. 1597,

Ill. 1611, Ill. 101

Table 6B — Ill. 1091A, Ill. 1593

North-Central, Central, and South-Central Illinois

Table 9A — Ill. 1511, Ill. 1514, Ill. 972A-1, Ill. 274-1

Table 9B — Ill. 274-1, Ill. 972A-1, Ill. 1511

Table 9C — Ill. 1617, Ill. 274-1, Ill. 21, Ill. 1511

Table 10B — Ill. 1515, Ill. 1421

South-Central and Southern Illinois

Table 12A — U.S. 13

Table 12B — Ill. 1349, Ill. 1540, U.S. 13

Table 12C — Ill. 2239W, Ill. 2235W, Ill. 2243W, Ill. 2159AW, Ill. 1332

Table 12D — Ill. 1664, Ill. 2231W, Ill. 2239W, Ill. 1539A, Ill. 2226W, Ill. 2235W

Inbred lines. Six systematic sets of single crosses were tested in 1950. The data can be used to predict the performance of 3,780 double-cross hybrids. In all possible single-cross combinations within each set, the following inbred lines were average or better in yield, maturity, and standability:

Northern Illinois

Tables 3A and 14A — B8, Oh51A, A277

Northern and North-Central Illinois

Tables 6A and 14B — W22, R61, Oh43, WF9, I.205, R2, 187-2, R66

Tables 7A and 14C — I.205, Oh5

North-Central, Central, and South-Central Illinois

Tables 8A and 14D — M14, WF9, K237, K159

Tables 10A and 14E — Hy2, Oh29, 38-11

Tables 11A and 14F — H10

South-Central and Southern Illinois

Tables 13A and 14G — C103, Oh7

Table 2. — HYBRID NUMBERS, PEDIGREES AND INDEX TO TABLES

Hybrid	Pedigree	Performance given in Table No.
Illinois hybrids		
21	(Hy2 × 187-2) (WF9 × 38-11)	5BCDE, 6B, 7B, 9ABC
101	(M14 × WF9) (187-2 × W26)	4ABC, 5DE
200	(WF9 × 38-11) (L317 × K4)	12ABCD
201	(WF9 × 38-11) (L317 × 187-2)	12D
274-1	(Hy2 × WF9) (Oh7 × 187-2)	9ABC
751	(A × 90) (Hy2 × WF9)	4ABC
972A-1	(Hy2 × L317) (WF9 × Oh7)	9ABC, 12D
1091A	(Hy2 × 187-2) (M14 × WF9)	4C, 5E, 6B, 7B
1180	(M14 × WF9) (W8 × W32)	4C
1276	(M14 × WF9) (R61 × 187-2)	5E
1277	(M14 × WF9) (I.205 × 187-2)	3B, 4ABC, 5ABCE, 6B, 7B
1279	(M14 × WF9) (A375 × 187-2)	3B, 4ABC, 5E
1280	(M14 × WF9) (Os420 × 187-2)	3B, 4ABC, 5ABCE
1281	(M14 × WF9) (A374 × A375)	4ABC
1289	(M14 × W22) (WF9 × I.205)	5ABCE
1290	(M14 × 187-2) (WF9 × I.205)	5E
1332	(Hy2 × Oh7) (WF9 × 38-11)	9BC, 12CD
1337	(Hy2 × R61) (WF9 × 38-11)	5E, 9ABC, 10B, 12CD
1349	(38-11 × Mo940) (K155 × K201)	12BCD
1375	(M14 × WF9) (N6 × Oh51A)	5ABCE
1421	(Hy2 × WF9) (P8 × Oh7)	10B
1445A	(38-11 × K4) (Cl.7 × Cl.21E)	12ABCD
1459	(38-11 × K4) (K201 × Cl.21E)	12ABCD, 13B
1493	(WF9 × I.205) (Oh28 × W22)	4BC
1508	(L7 × L17) (L12 × Oh28)	4BC
1509	(Hy2 × WF9) (P8 × L304A)	9ABC
1511	(Hy2 × WF9) (38-11 × L304A)	9ABC
1514	(Hy2 × 38-11) (L304A × N6)	9ABC
1515	(Hy2 × B10) (WF9 × 38-11)	9AC, 10B, 12CD
1521B	(38-11 × Cl.21E) (K201 × T8)	12BCD
1539A	(38-11 × Cl.7) (K201 × Cl.21E)	12BCD
1540	(38-11 × Cl.21E) (K155 × K201)	12BCD
1541A	(38-11 × Cl.7) (K155 × Cl.21E)	12BCD
1554	(Hy2 × R59) (WF9 × 38-11)	9ABC
1555A	(WF9 × Oh51A) (I.224 × Oh28)	5CE
1557	(M14 × Oh28) (I.205 × Oh51A)	5CE
1558	(M14 × WF9) (I.205 × Oh28)	4C, 5CE, 6B, 7B
1559B	(M14 × Oh28) (WF9 × Oh51A)	5CE
1560A	(WF9 × Oh51A) (I.205 × Oh28)	5CE
1567B	(38-11 × Ky36-11) (K201 × T8)	12CD
1570	(Hy2 × Oh41) (WF9 × 38-11)	9BC, 10B, 12CD, 13B
1571	(R61 × I.205) (L7 × L17)	5DE
1573	(R2 × M14) (L7 × L17)	5DE
1574	(WF9 × 38-11) (L12 × Oh28)	5DE
1575	(M14 × WF9) (L12 × Oh28)	5DE
1578	(M14 × Oh43) (L289 × Oh5)	3B, 4C
1579	(M14 × Oh43) (A73 × Oh5)	3B, 4C
1580	(M14 × A73) (Oh43 × Oh51A)	3B, 4C

(Table is continued on next page)

Table 2. — Continued

Hybrid	Pedigree	Performance given in Table No.
Illinois hybrids (continued)		
1581	(M14 × W22) (Oh5 × Oh43)	3B, 4C
1582	(M14 × Oh5) (L289 × Oh43)	3B, 4C
1583	(M14 × Oh5) (L289 × Oh51A)	3B, 4C
1584	(M14 × L289) (Oh5 × Oh51A)	3B, 4C
1585	(M14 × L289) (Oh5 × Oh43)	3B, 4C
1586	(M14 × Oh43) (A334 × Oh5)	3B, 4C
1587	(M14 × W22) (L289 × Oh5)	3B, 4C
1588	(R61 × WF9) (187-2 × W22)	5E
1589	(R2 × 187-2) (R61 × WF9)	5E
1590	(R2 × 187-2) (R61 × I.205)	5E
1591	(M14 × 187-2) (R61 × WF9)	5E
1592	(R61 × 187-2) (WF9 × I.205)	5E
1593	(M14 × R61) (WF9 × 187-2)	5E, 6B, 7B
1594	(R2 × WF9) (R61 × 187-2)	5E
1595	(WF9 × I.205) (187-2 × W22)	5E
1596	(R2 × 187-2) (WF9 × I.205)	5E
1597	(R61 × WF9) (187-2 × W24)	5E
1598	(R2 × 187-2) (M14 × R61)	5E
1599	(R61 × I.205) (187-2 × W22)	5E
1600	(R2 × W22) (R61 × WF9)	5E
1601	(R61 × WF9) (I.205 × 187-2)	5E
1602	(R2 × I.205) (R61 × 187-2)	5E
1603	(R2 × R61) (I.205 × 187-2)	5E
1604	(R2 × W24) (L289 × Oh51A)	5E
1605	(R2 × W24) (WF9 × L289)	5E
1606	(R2 × W24) (L289 × W22)	5E
1607	(R2 × R61) (I.205 × W22)	5E
1608	(R61 × 187-2) (I.205 × W22)	5E
1609	(WF9 × H10) (I.205 × W22)	5E
1610	(R61 × WF9) (I.205 × W22)	5E
1611	(Hy2 × WF9) (I.205 × W22)	5E
1612	(M14 × WF9) (R61 × R67)	4C, 5E
1613	(M14 × WF9) (R66 × R67)	5E
1614	(M14 × WF9) (R61 × R68)	5E
1615	(M14 × WF9) (R66 × R68)	5E
1617	(WF9 × B10) (Oh7 × Oh41)	9C
1624	(38-11 × Oh7) (B10 × 187-2)	9C
1625	(WF9 × 38-11) (Oh41 × 187-2)	9C
1626	(WF9 × B10) (Oh41 × 187-2)	9C
1631	(WF9 × B10) (Oh7 × 187-2)	9C
1633	(Hy2 × B10) (Oh7 × 187-2)	9C
1636	(C102 × Oh7A) (C103 × 38-11)	9C
1637	(C102 × Oh7A) (C103 × K155)	9C
1640	(C103 × 38-11) (K155 × Oh7A)	9C
1641	(C102 × C103) (WF9 × Oh7A)	12D
1642	(C102 × C103) (38-11 × K155)	9C
1645	(Hy2 × K148) (WF9 × 38-11)	9C
1646	(Hy2 × H12) (38-11 × B11)	9C
1648	(Hy2 × H12) (WF9 × B11)	9C

(Table is concluded on next page)

Table 2. — Concluded

Hybrid	Pedigree	Performance given in Table No.
Illinois hybrids (concluded)		
1653	(R61 × R69) (WF9 × 38-11)	9C
1654	(Hy2 × R66) (WF9 × 38-11)	9C
1655	(Hy2 × R61) (R66 × WF9)	9C
1656	(CI.103 × Hy2) (WF9 × 38-11)	9C, 13B
1657	(K4 × Oh7) (K201 × CI.21E)	12D
1659	(K4 × CI.21E) (K201 × Oh7)	12D
1661	(K4 × CI.21E) (K201 × T8)	12D
1662	(K4 × Oh7) (K155 × K201)	12D
1663	(38-11 × CI.21E) (K4 × Oh7)	12D
1664	(Kys × CI.21E) (K201 × Oh7)	12D
1666	(WF9 × 38-11) (K155 × Oh41)	12D
1667	(WF9 × 38-11) (K155 × Oh7)	12D
1668	(WF9 × 38-11) (K155 × CI.21E)	12D
1669	(WF9 × 38-11) (K155 × CI.7)	12D
1670	(PS × L304A) (38-11 × CI.21E)	12D
1671	(K4 × Oh7) (K155 × Ok.12)	12D
1672	(K4 × Ok.12) (K155 × Oh7)	12D
1673	(K4 × K155) (Oh7 × Ok.12)	12D
1676	(Hy2 × B10) (WF9 × H10)	9BC
1712	(38-11 × Ky36-11) (B18 × T8)	12CD
1721	(38-11 × K155) (K201 × T8)	12CD
2159AW	(H21 × Ky27) (K64 × CI.61)	12CD
2214W	(R30 × Ky27) (H21 × K64)	12D, 13B
2216W	(H21 × CI.61) (K64 × Ky27)	12CD
2225W	(R30 × K64) (Ky49 × CI.61)	12D
2226W	(R30 × K64) (H21 × Ky49)	12D
2228W	(R30 × K64) (H21 × CI.61)	12D
2229W	(R30 × H21) (K64 × Ky49)	12D
2230W	(R30 × Ky49) (H21 × K64)	12D
2231W	(R30 × Ky49) (K64 × CI.61)	12D
2234W	(H21 × Ky49) (K64 × Mo2RF)	12CD
2235W	(H21 × K64) (33-16 × Mo2RF)	12CD
2239W	(H21 × Ky27) (K64 × Mo2RF)	12CD
2243W	(R30 × K64) (33-16 × Mo2RF)	12CD
Miscellaneous hybrids		
Ind. 4601		5E
Ind. 8663		9C
Iowa 4527		9C
Mo. 800		12D
Mo. 804		12D
Mo. 840		12D
Ohio K24		4BC
Ohio K62		4BC
Ohio W64		3B, 4BC
Ohio 4822		9C
U.S. 13	(Hy × L317) (WF9 × 38-11)	5BCE, 9ABC, 10B, 12ABCD, 13B
U.S. 505	(WF9 × 38-11) (K155 × T8)	12CD

TABLE 3. — SINGLE AND DOUBLE CROSSES OF OHIO M15 MATURITY

Tested in Northern Illinois, 1950 (2 replications)

Code	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Single crosses								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	M14 × R53.....	61	18	80	96	92	7.0	24
2	M14 × B8.....	57	17	83	100	92	7.8	33
3	M14 × MS24A.....	61	20	80	95	98	6.5	24
4	R53 × B8.....	59	16	81	100	100	6.5	27
5	R53 × MS24A.....	50	21	82	86	93	6.5	22
6	B8 × MS24A.....	73	17	85	95	102	7.0	32
7	M14 × A73.....	55	21	80	100	95	7.0	28
8	R53 × A73.....	64	16	82	100	93	6.8	30
9	B8 × A73.....	63	18	82	100	98	7.8	38
10	MS24A × A73.....	60	18	82	96	92	6.2	26
11	M14 × A277.....	58	21	77	100	102	7.8	34
12	R53 × A277.....	58	19	81	96	95	7.0	27
13	B8 × A277.....	68	18	82	98	98	7.8	36
14	MS24A × A277.....	63	23	79	93	97	7.0	26
15	A73 × A277.....	59	19	78	98	102	8.0	34
16	M14 × A295.....	65	19	78	98	102	7.8	37
17	R53 × A295.....	57	16	78	94	88	7.0	30
18	B8 × A295.....	65	18	80	98	95	7.5	36
19	MS24A × A295.....	73	17	82	79	97	7.0	34
20	A73 × A295.....	52	21	77	100	97	7.2	34
21	A277 × A295.....	63	18	75	95	100	8.0	36
22	M14 × Oh51A.....	57	22	78	92	100	7.8	32
23	R53 × Oh51A.....	45	18	82	98	93	6.2	24
24	B8 × Oh51A.....	58	17	83	98	98	7.2	33
25	MS24A × Oh51A.....	67	17	84	93	93	7.0	26
26	A73 × Oh51A.....	71	20	81	100	97	7.2	32
27	A277 × Oh51A.....	67	17	81	95	98	7.5	32
28	A295 × Oh51A.....	61	18	78	93	97	8.0	36
29	M14 × W70.....	58	26	78	88	98	8.5	37
30	R53 × W70.....	68	21	82	88	100	7.8	30
31	B8 × W70.....	67	20	81	98	95	8.0	36
32	MS24A × W70.....	71	22	84	64	97	7.8	32
33	A73 × W70.....	51	22	81	98	95	7.8	32
34	A277 × W70.....	56	20	78	85	88	8.2	36
35	A295 × W70.....	62	19	79	97	97	8.0	38
36	Oh51A × W70.....	66	18	80	95	97	8.8	38
	Average.....	61	19	80	94	96	7.4	32
	Significant difference.....	11						
B — Double crosses								
37	Ill. 1585.....	82	21	80	97	100	8.5	33
38	Ill. 1584.....	81	20	80	97	100	9.0	38
39	Ohio W64.....	78	20	81	98	98	8.2	28
40	Ill. 1583.....	72	20	79	84	103	9.2	41
41	Ill. 1587.....	72	20	79	92	98	9.0	44
42	Ill. 1578.....	71	22	78	100	98	9.0	37
43	Ill. 1582.....	71	21	78	95	100	8.8	35
44	Ill. 1579.....	70	21	80	100	98	8.2	31
45	Ill. 1580.....	68	21	80	97	98	7.5	29
46	Ill. 1586.....	67	22	78	98	98	8.2	34
47	Ill. 1279.....	66	20	77	98	97	8.0	34
48	Ill. 1277.....	63	24	78	95	100	9.0	38
49	Ill. 1280.....	61	25	79	95	95	8.2	32
50	Ill. 1581.....	61	22	76	96	95	8.0	30
	Average.....	70	21	79	96	98	8.5	35
	Significant difference.....	11						

Table 4. — DOUBLE CROSSES OF ILL. 1277 OR OHIO K24 MATURITY
Tested in Northern Illinois, 1946-1950

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Five-year averages, 1946-1950								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	Ill. 1280.....	89	21	80	86	98	...	..
2	Ill. 1279.....	87	21	80	86	96	...	..
3	Ill. 1277.....	86	20	79	89	97	...	..
4	Ill. 1281.....	86	20	79	91	98	...	..
5	Ill. 101.....	83	22	79	90	97	...	..
6	Ill. 751.....	82	22	77	80	98	...	..
	Average.....	86	21	79	87	97	...	..
	Significant difference.....	5						
B — Two-year averages, 1949-1950								
1	Ill. 1280.....	90	18	80	83	98	8.6	34
2	Ohio K62.....	88	20	81	94	100	8.6	36
3	Ill. 1493.....	86	18	76	92	98	9.0	40
4	Ill. 1508.....	86	20	76	87	99	8.8	40
5	Ill. 1277.....	84	19	79	90	98	8.8	40
6	Ill. 1279.....	84	20	80	85	98	8.6	34
7	Ohio W64.....	84	20	82	96	99	8.5	30
8	Ill. 1281.....	83	18	78	90	99	8.4	36
9	Ill. 101.....	82	18	78	91	98	8.9	40
10	Ohio K24.....	80	18	80	86	100	9.2	38
11	Ill. 751.....	78	22	77	86	100	8.6	38
	Average.....	84	19	79	89	99	8.7	37
	Significant difference.....	10						
C — 1950 results (3 replications)								
1	Ill. 1583.....	80	17	79	94	99	9.2	40
2	Ill. 1280.....	75	18	78	95	98	8.2	31
3	Ill. 1579.....	74	22	79	98	99	8.2	32
4	Ill. 1581.....	73	18	78	95	97	8.5	34
5	Ill. 1578.....	73	19	78	93	100	9.0	39
6	Ill. 1585.....	72	18	77	97	98	9.2	37
7	Ill. 1586.....	72	18	79	99	99	8.2	33
8	Ill. 1277.....	71	21	77	99	100	8.3	36
9	Ill. 1279.....	71	20	78	97	98	8.5	37
10	Ohio K62.....	70	22	80	99	100	8.5	35
11	Ill. 101.....	70	20	76	94	97	9.0	38
12	Ill. 1582.....	70	21	78	100	97	9.2	36
13	Ill. 1587.....	70	20	78	92	99	9.0	40
14	Ill. 1091A.....	69	20	76	93	98	8.5	36
15	Ill. 1558.....	69	22	76	98	102	8.3	34
16	Ill. 1281.....	69	18	78	99	99	8.0	33
17	Ill. 1584.....	69	19	78	97	96	8.8	38
18	Ill. 1612.....	68	18	78	100	98	8.0	35
19	Ohio K24.....	68	18	79	94	97	9.0	36
20	Ill. 1508.....	68	24	74	100	98	8.5	38
21	Ohio W64.....	66	22	80	99	98	8.0	27
22	Ill. 1493.....	65	19	74	91	97	8.8	35
23	Ill. 1180.....	63	22	78	94	100	8.0	34
24	Ill. 1580.....	59	22	78	99	101	7.5	27
25	Ill. 751.....	56	27	74	90	98	8.3	35
	Average.....	69	20	78	96	98	8.5	35
	Significant difference.....	(a)						

^a Yield differences were not statistically significant in 4C.

Table 5. — DOUBLE CROSSES OF ILL. 21 OR IOWA 4059 MATURITY
Tested in Northern and North-Central Illinois, 1947-1950

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear

A — Four-year averages, 1947-1950

		bu.	perct.	perct.	perct.	perct.	ft.	in.
1	Ill. 1277.....	93	21	80	86	97	9.0	39
2	Ill. 1289.....	93	21	78	87	96	8.6	37
3	Ill. 1375.....	91	21	80	88	95	8.6	38
4	Ill. 1280.....	90	21	80	82	98	8.7	36
	Average.....	92	21	80	86	96	8.7	38
	Significant difference.....	6						

B — Three-year averages, 1948-1950

1	Ill. 1277.....	94	21	79	90	97	9.0	39
2	Ill. 1289.....	94	20	78	92	95	8.6	37
3	Ill. 21.....	92	23	77	80	99	9.4	46
4	Ill. 1375.....	91	20	79	92	93	8.5	37
5	Ill. 1280.....	91	21	79	86	97	8.7	35
6	U.S. 13.....	88	25	76	79	98	9.5	49
	Average.....	92	22	78	86	96	9.0	40
	Significant difference.....	7						

C — Two-year averages, 1949-1950^a

1	Ill. 1277.....	90	20	79	86	96	8.8	38
2	Ill. 1289.....	90	19	78	89	92	8.4	34
3	Ill. 1559B.....	90	18	80	90	90	8.6	32
4	Ill. 1560A.....	90	19	80	90	100	9.0	36
5	Ill. 1555A.....	88	18	82	88	96	9.0	36
6	Ill. 1557.....	88	20	78	90	96	8.3	33
7	Ill. 1558.....	87	22	78	90	96	8.4	33
8	Ill. 1375.....	83	19	80	89	90	8.4	37
9	Ill. 1280.....	82	20	79	80	96	8.6	32
10	Ill. 21.....	78	24	76	70	98	9.2	44
11	U.S. 13.....	76	24	76	70	97	9.2	46
	Average.....	86	20	79	85	95	8.7	36
	Significant difference.....	10						

D — Two-year averages, 1949-1950^a

1	Ill. 1574.....	84	24	77	84	98	9.0	39
2	Ill. 21.....	80	24	76	80	96	9.0	44
3	Ill. 1575.....	80	21	78	88	100	8.6	38
4	Ill. 1571.....	77	24	74	84	98	8.3	38
5	Ill. 1573.....	76	22	74	90	98	8.4	36
6	Ill. 101.....	74	19	78	83	96	8.2	34
	Average.....	78	22	76	85	98	8.6	38
	Significant difference.....	12						

E — 1950 results (2 replications)

1	Ill. 1559B.....	71	20	78	100	95	8.2	28
2	Ill. 1289.....	71	20	78	97	100	8.2	32
3	Ill. 1560A.....	70	20	80	100	100	8.5	32
4	Ill. 1557.....	69	21	77	100	93	8.0	29
5	Ill. 1290.....	68	21	77	98	100	8.5	37

^a The two-year averages in C and D are separate because the 1949 data were obtained from 2 different experiments.

(Table is continued on next page)

Table 5. — DOUBLE CROSSES OF ILL. 21 OR IOWA 4059
MATURITY — concluded

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
E — 1950 results (2 replications) — concluded								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
6	Ill. 1375.....	68	20	78	93	100	8.0	34
7	Ill. 1091A.....	68	24	76	100	100	8.2	36
8	Ill. 1609.....	67	20	75	93	100	8.8	38
9	Ill. 1277.....	66	22	78	93	100	8.5	36
10	Ill. 1555A.....	66	19	80	96	95	8.5	31
11	Ill. 1280.....	65	23	78	93	98	8.5	32
12	Ill. 1606.....	65	20	77	80	100	9.0	40
13	Ill. 1279.....	65	20	78	97	98	8.5	39
14	Ill. 1591.....	64	21	78	90	100	8.5	38
15	Ill. 1602.....	63	20	77	91	95	8.8	44
16	Ill. 1588.....	62	19	77	91	90	8.8	42
17	Ill. 1592.....	62	21	75	89	93	8.5	38
18	Ill. 1595.....	62	20	75	95	100	8.5	34
19	Ill. 1597.....	61	20	77	95	97	8.5	40
20	Ill. 1604.....	60	20	79	87	100	8.8	38
21	Ill. 1574.....	60	28	75	95	98	8.5	35
22	Ill. 1593.....	60	23	75	90	100	8.5	38
23	Ill. 1605.....	59	24	73	95	100	8.8	40
24	Ill. 1611.....	58	21	74	97	100	8.5	38
25	Ill. 1276.....	58	23	77	86	95	8.2	38
26	Ill. 101.....	58	19	76	98	95	8.2	34
27	Ill. 1599.....	57	21	73	93	97	8.5	38
28	Ill. 1575.....	57	23	77	98	100	8.5	36
29	Ill. 1558.....	56	24	75	98	95	8.2	29
30	Ill. 1589.....	56	20	75	86	92	8.8	42
31	Ill. 1614.....	56	24	75	98	98	8.2	32
32	Ill. 1615.....	55	26	71	98	98	8.0	32
33	Ill. 1607.....	55	23	74	95	95	8.8	40
34	Ill. 1596.....	55	23	74	100	100	8.2	38
35	Ill. 1594.....	54	21	76	92	100	8.8	43
36	Ill. 1601.....	54	23	75	95	100	8.5	41
37	Ill. 1612.....	52	21	76	93	98	7.8	35
38	Ill. 1573.....	52	25	70	97	98	8.2	34
39	Ind. 4601.....	52	24	76	87	100	8.0	36
40	Ill. 1571.....	52	28	70	92	98	8.5	38
41	Ill. 1608.....	50	21	73	90	100	8.5	40
42	Ill. 1603.....	49	22	72	95	97	8.5	40
43	Ill. 1610.....	49	21	72	93	98	8.5	37
44	Ill. 1337.....	49	26	75	60	100	8.8	43
45	Ill. 1598.....	47	21	75	82	93	8.5	40
46	Ill. 1590.....	44	32	70	95	98	8.5	40
47	Ill. 21.....	43	30	73	87	100	8.5	41
48	Ill. 1613.....	41	27	73	91	98	8.0	36
49	U.S. 13.....	41	30	72	70	100	8.5	42
50	Ill. 1600.....	40	26	71	93	95	8.2	37
	Average.....	58	23	75	92	98	8.4	37
	Significant difference.....	15						

Table 6. — SINGLE AND DOUBLE CROSSES OF ILL. 21 OR IOWA 4059 MATURITY

Tested in Northern Illinois, 1950 (4 replications, single-hill plots)

Code	Entry	Acre yield	Erect plants	Stand	Height	
					Plant	Ear
A — Single crosses						
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	R2 × M14.....	59	100	83	7.5	28
2	R2 × R61.....	92	100	100	8.4	36
3	R2 × R66.....	71	92	100	7.8	34
4	M14 × R61.....	71	100	100	7.8	30
5	M14 × R66.....	73	92	100	7.6	32
6	R61 × R66.....	71	100	100	7.4	36
7	R2 × R67.....	58	100	100	7.5	31
8	M14 × R67.....	58	100	100	6.8	24
9	R61 × R67.....	60	100	100	7.0	31
10	R66 × R67.....	51	100	75	7.1	33
11	R2 × WF9.....	81	100	92	8.1	32
12	M14 × WF9.....	71	100	100	7.8	26
13	R61 × WF9.....	78	100	100	8.0	32
14	R66 × WF9.....	84	100	100	7.8	36
15	R67 × WF9.....	64	100	100	7.2	28
16	R2 × I.205.....	74	100	100	7.8	32
17	M14 × I.205.....	81	100	100	7.2	28
18	R61 × I.205.....	82	100	100	7.5	34
19	R66 × I.205.....	88	92	100	7.4	33
20	R67 × I.205.....	62	100	100	7.1	31
21	WF9 × I.205.....	76	100	100	7.5	32
22	R2 × Oh43.....	91	100	100	8.1	28
23	M14 × Oh43.....	66	100	100	7.0	21
24	R61 × Oh43.....	79	100	92	7.2	26
25	R66 × Oh43.....	77	100	100	7.5	27
26	R67 × Oh43.....	72	100	100	7.0	25
27	WF9 × Oh43.....	84	100	100	7.4	24
28	I.205 × Oh43.....	87	100	100	7.4	26
29	R2 × 187-2.....	84	100	100	8.2	38
30	M14 × 187-2.....	69	100	100	8.0	32
31	R61 × 187-2.....	86	100	100	8.0	35
32	R66 × 187-2.....	74	75	100	8.0	38
33	R67 × 187-2.....	55	100	100	7.2	32
34	WF9 × 187-2.....	80	100	92	8.4	36
35	I.205 × 187-2.....	79	100	100	8.0	35
36	Oh43 × 187-2.....	77	100	100	7.5	28
37	R2 × W22.....	85	100	100	8.0	31
38	M14 × W22.....	86	100	100	7.5	27
39	R61 × W22.....	88	100	100	8.0	32
40	R66 × W22.....	90	92	100	7.8	32
41	R67 × W22.....	77	100	108	7.2	29
42	WF9 × W22.....	82	100	100	7.8	29
43	I.205 × W22.....	71	100	100	7.2	28
44	Oh43 × W22.....	73	100	100	7.0	25
45	187-2 × W22.....	90	100	100	8.0	33
	Average.....	76	99	99	7.6	31
	Significant difference.....	20				
B — Double crosses						
46	Ill. 21.....	68	92	100	8.1	36
47	Ill. 1091A.....	90	100	100	8.1	34
48	Ill. 1277.....	81	92	100	7.8	30
49	Ill. 1558.....	47	100	92	8.2	46
50	Ill. 1593.....	73	100	100	7.9	33
	Average.....	72	97	98	8.0	36
	Significant difference.....	20				

Table 7. — SINGLE AND DOUBLE CROSSES OF ILL. 21 OR IOWA 4059 MATURITY

Tested in Northern Illinois, 1950 (2 replications)

Code	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Single crosses								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	M14 × WF9.....	57	26	73	98	98	7.8	28
2	M14 × B35.....	53	28	74	97	100	7.8	30
3	M14 × I.205.....	51	34	78	100	98	7.2	27
4	WF9 × B35.....	38	37	71	100	98	7.8	30
5	WF9 × I.205.....	56	26	79	100	93	7.8	29
6	B35 × I.205.....	55	29	77	100	97	7.8	30
7	M14 × K159.....	37	48	70	98	100	8.0	36
8	WF9 × K159.....	36	44	69	100	100	8.2	37
9	B35 × K159.....	42	46	73	100	97	8.2	39
10	I.205 × K159.....	50	36	76	100	98	8.2	36
11	M14 × K237.....	48	24	75	100	100	7.8	31
12	WF9 × K237.....	53	32	75	100	98	7.8	33
13	B35 × K237.....	40	36	70	100	97	7.5	32
14	I.205 × K237.....	47	32	73	100	95	7.8	28
15	K159 × K237.....	31	36	69	100	98	7.8	38
16	M14 × Oh5.....	52	22	74	100	102	8.0	32
17	WF9 × Oh5.....	55	26	72	100	102	7.8	28
18	B35 × Oh5.....	51	30	75	100	98	8.2	33
19	I.205 × Oh5.....	64	24	76	100	98	8.2	34
20	K159 × Oh5.....	51	30	72	98	100	8.5	41
21	K237 × Oh5.....	49	30	73	100	98	8.2	34
22	M14 × Oh45.....	56	35	75	100	102	8.0	25
23	WF9 × Oh45.....	52	43	73	100	100	8.0	28
24	B35 × Oh45.....	53	42	74	100	102	8.0	28
25	I.205 × Oh45.....	54	35	75	100	100	8.0	29
26	K159 × Oh45.....	38	46	66	100	98	8.2	34
27	K237 × Oh45.....	39	37	71	100	100	7.8	26
28	Oh5 × Oh45.....	50	38	73	100	100	8.2	27
29	M14 × 187-2.....	50	23	76	100	100	8.0	32
30	WF9 × 187-2.....	48	28	72	95	100	8.2	36
31	B35 × 187-2.....	31	42	66	98	102	8.0	39
32	I.205 × 187-2.....	55	27	78	98	100	8.5	38
33	K159 × 187-2.....	29	42	70	100	98	7.8	40
34	K237 × 187-2.....	50	24	73	100	98	8.2	40
35	Oh5 × 187-2.....	56	23	74	100	98	8.2	36
36	Oh45 × 187-2.....	53	33	72	100	100	8.2	34
37	M14 × W146.....	56	22	74	100	100	7.2	28
38	WF9 × W146.....	48	32	71	100	100	7.8	30
39	B35 × W146.....	62	21	75	100	98	8.0	32
40	I.205 × W146.....	54	31	76	98	95	7.8	31
41	K159 × W146.....	34	46	66	100	100	7.8	36
42	K237 × W146.....	42	29	71	98	100	7.2	28
43	Oh5 × W146.....	56	22	73	100	100	8.0	30
44	Oh45 × W146.....	42	39	69	98	98	7.8	26
45	187-2 × W146.....	28	42	69	97	97	7.0	27
	Average.....	48	33	73	99	99	7.9	32
	Significant difference.....	10						
B — Double crosses								
46	Ill. 1091A.....	54	31	74	100	100	8.5	32
47	Ill. 1558.....	54	31	73	100	100	7.8	28
48	Ill. 1593.....	52	28	74	97	100	8.0	34
49	Ill. 1277.....	48	28	74	100	98	8.0	32
50	Ill. 211.....	46	30	73	95	98	7.6	34
	Average.....	51	30	74	98	99	8.0	32
	Significant difference.....	10						

Table 8.—SINGLE CROSSES OF ILL. 21 OR IOWA 4059 MATURITY
Tested in Central Illinois, 1950 (3 replications)

Code	Entry	Acre yield	Moist- ure in grain	Shelling	Erect plants	Stand	Prematurely dead plants
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>
1	M14 × WF9.....	105	18	81	91	96	2.9
2	M14 × B35.....	96	17	83	48	94	22.1
3	M14 × L205.....	104	20	85	92	93	7.9
4	WF9 × B35.....	79	16	83	61	87	5.7
5	WF9 × L205.....	96	19	84	88	90	0
6	B35 × L205.....	102	17	83	64	90	1.4
7	M14 × K159.....	99	18	83	85	96	5.0
8	WF9 × K159.....	88	17	83	85	89	0
9	B35 × K159.....	98	18	84	47	97	4.3
10	L205 × K159.....	99	20	82	83	97	0
11	M14 × K237.....	94	18	81	97	90	.7
12	WF9 × K237.....	104	18	81	91	93	0
13	B35 × K237.....	93	17	82	74	90	0
14	L205 × K237.....	89	20	78	95	81	0
15	K159 × K237.....	97	18	81	95	92	0
16	M14 × Oh5.....	92	16	83	81	94	55.7
17	WF9 × Oh5.....	99	17	81	83	92	22.1
18	B35 × Oh5.....	94	16	82	44	86	30.7
19	L205 × Oh5.....	90	17	81	67	86	57.1
20	K159 × Oh5.....	100	17	84	92	96	3.6
21	K237 × Oh5.....	92	17	82	74	90	.7
22	M14 × Oh45.....	104	19	83	94	95	2.1
23	WF9 × Oh45.....	118	22	83	79	96	0
24	B35 × Oh45.....	115	19	84	83	97	0
25	L205 × Oh45.....	102	22	81	98	84	0
26	K159 × Oh45.....	108	18	83	93	93	0
27	K237 × Oh45.....	106	20	79	91	96	0
28	Oh5 × Oh45.....	108	19	83	80	94	8.6
29	M14 × 187-2.....	102	17	84	78	93	7.9
30	WF9 × 187-2.....	98	16	84	64	85	.7
31	B35 × 187-2.....	104	17	86	6	97	12.1
32	L205 × 187-2.....	101	17	84	36	92	15.0
33	K159 × 187-2.....	104	17	84	61	94	.7
34	K237 × 187-2.....	107	18	80	92	92	0
35	Oh5 × 187-2.....	96	17	84	54	89	41.4
36	Oh45 × 187-2.....	113	20	83	76	94	1.4
37	M14 × W146.....	104	17	83	90	94	27.9
38	WF9 × W146.....	102	16	82	84	92	1.4
39	B35 × W146.....	97	16	84	24	93	37.1
40	L205 × W146.....	94	18	82	95	82	2.9
41	K159 × W146.....	102	16	86	88	96	10.0
42	K237 × W146.....	105	17	81	98	90	.7
43	Oh5 × W146.....	104	17	82	94	95	30.0
44	Oh45 × W146.....	113	18	83	91	97	1.4
45	187-2 × W146.....	63	19	82	66	91	12.9
	Average.....	100	18	83	77	92	9.6
	Significant difference.....	9					

Table 9. — DOUBLE CROSSES OF U.S. 13 MATURITY
Tested in North-Central and South-Central Illinois, 1948-1950

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Three-year averages, 1948-1950								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	Ill. 1509.	120	21	82	83	96	...	50
2	Ill. 1511.	116	20	82	88	92	...	50
3	Ill. 1514.	116	20	82	87	96	...	49
4	Ill. 972A-1.	114	20	81	85	88	...	47
5	Ill. 274-1.	113	20	82	90	98	...	45
6	Ill. 1554.	112	22	80	82	96	...	50
7	U.S. 13.	111	20	80	81	97	...	50
8	Ill. 21.	111	20	81	82	95	...	50
9	Ill. 1337.	111	20	81	82	97	...	49
10	Ill. 1515.	107	22	78	85	98	...	49
	Average.	113	20	81	84	95	...	49
	Significant difference.	7						
B — Two-year averages, 1949-1950								
1	Ill. 1509.	112	20	82	75	95	10.0	48
2	Ill. 274-1.	110	18	82	86	98	9.6	46
3	Ill. 972A-1.	109	20	81	80	94	9.8	48
4	Ill. 1570.	109	20	80	74	96	9.5	48
5	Ill. 1511.	107	19	82	84	90	9.9	48
6	Ill. 1676.	106	21	80	80	96	10.0	50
7	Ill. 21.	105	19	82	74	94	9.8	49
8	Ill. 1554.	105	22	80	76	96	9.7	49
9	U.S. 13.	105	20	80	72	95	10.0	50
10	Ill. 1332.	104	19	81	84	95	10.0	48
11	Ill. 1514.	104	19	82	81	95	9.7	48
12	Ill. 1337.	102	20	80	77	96	9.6	46
	Average.	106	20	81	79	95	9.8	48
	Significant difference.	9						
C — 1950 results (4 replications)								
1	Ill. 1633.	116	21	80	85	99	10.2	54
2	Ill. 1509.	116	21	82	75	92	10.2	50
3	Ill. 1617.	114	19	79	90	78	9.6	46
4	Ill. 1570.	113	21	79	83	92	9.5	47
5	Ill. 274-1.	112	19	82	94	97	9.4	46
6	Ind. 8663.	112	21	81	84	88	10.0	46
7	Ill. 1624.	111	19	79	85	89	10.1	51
8	Ill. 21.	111	20	80	89	92	10.1	50
9	Ill. 1653.	110	22	80	79	97	9.5	48
10	Ill. 1511.	109	20	81	89	89	10.0	50
11	Ill. 1554.	109	23	79	91	93	9.6	49
12	Ill. 1337.	108	21	79	87	96	9.8	49
13	Ill. 972A-1.	107	21	80	86	92	10.0	50
14	U.S. 13.	106	21	79	84	92	10.2	51
15	Ill. 1636.	105	20	79	85	98	10.4	51
16	Ill. 1332.	105	20	80	94	94	10.1	51
17	Ill. 1642.	105	21	78	86	97	10.1	52
18	Ill. 1676.	105	22	78	87	93	10.1	50
19	Ill. 1625.	103	21	80	81	97	9.6	48
20	Ill. 1654.	103	22	79	87	92	9.9	51
21	Ill. 1631.	103	18	81	93	96	9.8	48
22	Ohio 4822.	103	24	78	97	91	9.8	48
23	Iowa 4527.	102	21	80	95	95	9.6	45
24	Ill. 1656.	100	21	79	91	95	9.8	49
25	Ill. 1645.	100	22	78	86	94	10.0	49

(Table is concluded on next page)

Table 9.—DOUBLE CROSSES OF U.S. 13 MATURITY —concluded

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
C — 1950 results (4 replications) — concluded								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
26	Ill. 1515.....	99	21	78	92	98	9.6	47
27	Ill. 1514.....	99	19	82	85	91	9.6	52
28	Ill. 1648.....	98	24	81	94	98	9.6	50
29	Ill. 1655.....	97	23	77	89	99	9.2	45
30	Ill. 1626.....	96	21	78	85	95	9.8	48
31	Ill. 1637.....	95	21	78	86	92	10.4	53
32	Ill. 1640.....	95	22	75	86	91	10.1	54
33	Ill. 1646.....	93	20	78	93	94	9.2	45
	Average.....	105	21	79	88	94	9.8	49
	Significant difference.....	14						

Table 10. — SINGLE AND DOUBLE CROSSES OF U.S. 13 MATURITY
Tested in Central Illinois, 1950 (6 replications, single-hill plots)

Code	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Single crosses								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	Hy2 × R64.....	116	19	82	65	96	9.6	51
2	Hy2 × R65.....	106	19	81	46	100	9.4	44
3	Hy2 × WF9.....	96	18	82	83	96	8.2	33
4	R64 × R65.....	120	21	81	50	100	10.4	52
5	R64 × WF9.....	98	20	83	91	96	8.7	35
6	R65 × WF9.....	78	17	84	67	88	9.0	34
7	Hy2 × 38-11.....	113	18	83	67	100	9.4	47
8	R64 × 38-11.....	103	19	83	58	100	9.4	42
9	R65 × 38-11.....	97	18	80	50	100	9.9	52
10	WF9 × 38-11.....	96	19	83	100	96	8.9	39
11	Hy2 × L317.....	122	19	81	88	100	9.5	51
12	R64 × L317.....	104	21	82	46	100	10.2	56
13	R65 × L317.....	111	21	80	29	100	9.8	51
14	WF9 × L317.....	104	17	82	88	100	8.9	40
15	38-11 × L317.....	101	19	80	61	96	9.9	53
16	Hy2 × K171.....	107	18	80	79	100	9.8	54
17	R64 × K171.....	89	20	80	83	96	9.6	48
18	R65 × K171.....	85	18	79	52	88	9.8	55
19	WF9 × K171.....	92	18	81	86	88	9.0	40
20	38-11 × K171.....	98	18	79	71	100	9.9	55
21	L317 × K171.....	104	20	78	50	100	10.4	65
22	Hy2 × K214.....	112	15	83	83	96	9.8	58
23	R64 × K214.....	120	16	84	70	96	10.2	58
24	R65 × K214.....	88	17	82	47	79	9.8	54
25	WF9 × K214.....	87	18	81	83	96	8.6	37
26	38-11 × K214.....	110	16	81	61	96	10.2	59
27	L317 × K214.....	102	17	82	13	96	10.2	60
28	K171 × K214.....	95	16	80	76	88	10.4	66
29	Hy2 × Oh29.....	122	19	80	96	100	9.6	42
30	R64 × Oh29.....	89	19	81	92	100	9.8	44
31	R65 × Oh29.....	100	19	77	44	96	9.9	48
32	WF9 × Oh29.....	91	18	80	83	100	8.7	31
33	38-11 × Oh29.....	92	18	78	100	88	9.9	46
34	L317 × Oh29.....	120	18	82	88	100	9.8	48
35	K171 × Oh29.....	84	19	76	54	100	9.8	52
36	K214 × Oh29.....	124	16	82	46	100	10.2	56
37	Hy2 × W102.....	96	18	84	79	100	8.5	38
38	R64 × W102.....	89	20	83	58	100	8.7	38
39	R65 × W102.....	100	19	83	12	100	8.9	40
40	WF9 × W102.....	94	17	83	92	100	8.3	35
41	38-11 × W102.....	98	17	83	92	100	8.9	38
42	L317 × W102.....	99	20	80	23	92	9.2	47
43	K171 × W102.....	88	18	81	76	88	9.2	45
44	K214 × W102.....	70	16	82	53	71	9.6	50
45	Oh29 × W102.....	104	19	81	78	96	8.9	34
	Average.....	101	18	81	67	96	9.5	47
	Significant difference.....	19						
B — Double crosses								
46	Ill. 1515.....	108	18	81	75	100	9.2	44
47	Ill. 1570.....	108	20	84	79	96	8.8	40
48	Ill. 1421.....	108	18	83	83	96	8.9	38
49	U.S. 13.....	105	18	83	57	96	9.3	44
50	Ill. 1337.....	105	19	82	83	100	9.0	42
	Average.....	107	19	83	75	98	9.0	42
	Significant difference.....	19						

Table 11. — SINGLE CROSSES OF U.S. 13 MATURITY
Tested in Central Illinois, 1950 (4 replications)

Code	Entry	Acre yield	Mois- ture in grain	Shelling	Code	Entry	Acre yield	Mois- ture in grain	Shelling
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>			<i>bu.</i>	<i>perct.</i>	<i>perct.</i>
1	C103 × Hy2.....	127	19	82	31	R64 × B10.....	124	21	80
2	C103 × R61.....	122	20	79	32	R65 × B10.....	112	19	78
3	C103 × R64.....	94	21	79	33	WF9 × B10.....	111	18	78
4	R61 × Hy2.....	114	18	82	34	H10 × B10.....	117	17	80
5	R64 × Hy2.....	127	19	83	35	38-11 × B10.....	116	19	79
6	R61 × R64.....	127	22	83	36	C103 × Oh29.....	110	19	76
7	C103 × R65.....	138	19	80	37	Hy2 × Oh29.....	108	19	79
8	Hy2 × R65.....	129	18	84	38	R61 × Oh29.....	121	18	80
9	R61 × R65.....	112	18	82	39	R64 × Oh29.....	95	18	80
10	R64 × R65.....	129	21	81	40	R65 × Oh29.....	123	18	79
11	C103 × WF9.....	111	19	80	41	WF9 × Oh29.....	119	16	80
12	Hy2 × WF9.....	113	19	83	42	H10 × Oh29.....	136	20	82
13	R61 × WF9.....	124	18	83	43	38-11 × Oh29.....	126	18	80
14	R64 × WF9.....	125	19	84	44	B10 × Oh29.....	110	18	74
15	R65 × WF9.....	114	18	84	45	C103 × Oh41.....	118	24	77
16	C103 × H10.....	139	19	83	46	Hy2 × Oh41.....	114	20	79
17	R61 × H10.....	115	18	84	47	R62 × Oh41.....	95	20	80
18	R64 × H10.....	131	18	84	48	R64 × Oh41.....	116	20	80
19	R65 × H10.....	129	17	84	49	R65 × Oh41.....	132	19	81
20	WF9 × H10.....	128	16	84	50	WF9 × Oh41.....	127	19	82
21	C103 × 38-11.....	125	18	84	51	H10 × Oh41.....	126	20	82
22	Hy2 × 38-11.....	133	19	84	52	38-11 × Oh41.....	137	20	83
23	R61 × 38-11.....	135	20	82	53	B10 × Oh41.....	125	19	76
24	R64 × 38-11.....	121	19	84	54	Oh29 × Oh41.....	135	20	79
25	R65 × 38-11.....	119	19	82		Average.....	121	19	81
26	WF9 × 38-11.....	124	20	84		Significant difference.....	13		
27	H10 × 38-11.....	121	17	84					
28	C103 × B10.....	132	18	75					
29	Hy2 × B10.....	116	18	78					
30	R61 × B10.....	123	17	79					

Table 12.—SINGLE AND DOUBLE CROSSES OF
ILLINOIS 448 MATURITY

Tested in South-Central and Southern Illinois, 1950 (4 replications)

Code	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Single crosses								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	C103 × Hy2.....	119	22	80	88	93	9.6	49
2	C103 × H10.....	115	20	82	100	94	9.9	47
3	C103 × 38-11.....	126	21	79	95	97	10.1	48
4	Hy2 × H10.....	100	20	84	96	94	9.8	45
5	Hy2 × 38-11.....	113	20	81	79	94	9.5	50
6	H10 × 38-11.....	114	20	81	94	98	10.0	52
7	C103 × B10.....	119	20	72	88	100	10.1	45
8	Hy2 × B10.....	89	22	78	68	91	9.0	43
9	H10 × B10.....	108	20	79	75	96	10.4	51
10	38-11 × B10.....	98	20	73	76	96	9.4	46
11	C103 × K155.....	118	21	76	94	91	9.9	49
12	Hy2 × K155.....	108	21	80	82	92	9.5	50
13	H10 × K155.....	114	21	81	96	96	10.2	51
14	38-11 × K155.....	116	22	79	93	97	9.6	49
15	B10 × K155.....	109	24	76	92	85	10.0	52
16	C103 × K201.....	121	25	76	86	87	9.8	48
17	U.S. 523W.....	108	25	81	79	93	9.9	47
18	H10 × K201.....	116	25	81	91	92	10.6	56
19	38-11 × K201.....	121	23	77	87	96	9.8	52
20	B10 × K201.....	130	25	76	76	99	9.4	46
21	K155 × K201.....	111	25	78	74	97	9.9	53
22	C103 × Oh7.....	124	21	79	98	96	10.0	46
23	Hy2 × Oh7.....	112	20	83	94	96	9.1	46
24	H10 × Oh7.....	93	20	84	99	89	9.9	45
25	38-11 × Oh7.....	122	20	80	93	96	10.0	49
26	B10 × Oh7.....	113	18	81	90	93	9.5	43
27	K155 × Oh7.....	109	22	81	88	92	9.2	44
28	K201 × Oh7.....	112	27	81	77	87	10.1	48
29	C103 × Oh41.....	104	24	77	98	96	9.1	43
30	Hy2 × Oh41.....	108	22	79	92	92	8.6	46
31	H10 × Oh41.....	113	22	81	96	94	9.6	48
32	38-11 × Oh41.....	120	23	80	92	98	9.2	49
33	B10 × Oh41.....	114	27	77	60	96	9.4	47
34	K155 × Oh41.....	100	24	75	67	96	9.9	52
35	K201 × Oh41.....	125	27	78	84	99	9.0	48
36	Oh7 × Oh41.....	115	22	79	94	99	9.5	47
37	C103 × Cl.21E.....	122	26	75	97	93	10.5	48
38	Hy2 × Cl.21E.....	72	24	79	91	79	8.6	42
39	H10 × Cl.21E.....	124	26	83	99	101	10.8	49
40	38-11 × Cl.21E.....	143	23	78	67	96	10.6	55
41	B10 × Cl.21E.....	118	23	76	56	94	10.1	45
42	K155 × Cl.21E.....	126	26	78	94	85	10.6	51
43	K201 × Cl.21E.....	119	31	79	92	97	9.8	50
44	Oh7 × Cl.21E.....	125	23	82	90	96	10.2	49
45	Oh41 × Cl.21E.....	119	26	77	78	99	9.6	47
	Average.....	114	23	79	87	94	9.8	48
	Significant difference.....	11						
B — Double crosses								
46	Ill. 2214W.....	128	24	83	91	95	9.8	50
47	Ill. 1459.....	119	24	79	84	92	10.1	51
48	Ill. 1656.....	109	21	80	96	98	9.1	46
49	Ill. 1570.....	105	21	80	86	99	8.9	41
50	U.S. 13.....	99	19	80	88	99	9.8	48
	Average.....	112	22	80	89	97	9.5	47
	Significant difference.....	11						

Table 13.—DOUBLE CROSSES OF ILLINOIS 448 MATURITY
Tested in South-Central and Southern Illinois, 1947-1950

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
A — Four-year averages, 1947-1950								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
1	U.S. 13.....	97	19	82	74	99	9.6	48
2	Ill. 1445A.....	96	23	80	68	95	10.0	55
3	Ill. 1459.....	95	23	80	65	91	10.0	56
4	Ill. 200.....	92	18	82	68	94	9.8	52
	Average.....	95	21	81	69	95	9.8	53
	Significant difference.....	8						
B — Three-year averages, 1948-1950								
1	Ill. 1541A.....	103	24	79	77	95	10.3	58
2	Ill. 1349.....	102	21	81	74	96	9.9	52
3	Ill. 1540.....	102	22	80	77	90	10.1	55
4	U.S. 13.....	101	19	81	74	100	9.7	46
5	Ill. 1521B.....	101	24	78	76	93	10.1	56
6	Ill. 1459.....	99	25	79	63	88	10.3	57
7	Ill. 1445A.....	98	24	80	67	94	10.1	55
8	Ill. 200.....	98	19	82	68	93	10.2	53
9	Ill. 1539A.....	98	24	80	73	86	10.0	53
	Average.....	100	22	80	72	93	10.1	54
	Significant difference.....	9						
C — Two-year averages, 1949-1950								
1	Ill. 2239W.....	101	22	83	75	96	10.0	56
2	Ill. 2235W.....	100	22	82	78	98	9.7	50
3	Ill. 1459.....	100	24	78	62	92	10.0	55
4	Ill. 1721.....	98	23	80	82	92	9.8	54
5	Ill. 2243W.....	98	22	82	71	99	9.6	50
6	Ill. 1712.....	98	25	80	66	94	10.0	54
7	Ill. 2234W.....	96	23	81	72	96	10.0	53
8	Ill. 1567B.....	95	24	80	81	94	9.6	52
9	Ill. 2159AW.....	94	22	80	84	95	9.8	52
10	Ill. 1521B.....	94	24	78	74	94	9.7	52
11	Ill. 200.....	93	20	81	64	95	10.0	52
12	Ill. 1349.....	93	22	81	64	96	9.7	50
13	Ill. 1332.....	92	18	82	80	96	9.4	45
14	U.S. 13.....	91	20	81	65	100	9.6	50
15	U.S. 505.....	91	22	78	78	94	9.4	48
16	Ill. 1445A.....	91	25	80	55	96	10.0	54
17	Ill. 1541A.....	89	24	79	68	96	10.1	55
18	Ill. 1540.....	88	26	79	68	94	9.8	52
19	Ill. 1539A.....	88	26	80	64	86	10.0	52
20	Ill. 1337.....	87	20	82	70	99	9.0	44
21	Ill. 1570.....	86	20	80	72	97	9.3	47
22	Ill. 1515.....	82	20	80	76	96	9.1	46
23	Ill. 2216W.....	82	22	78	58	94	9.8	52
	Average.....	92	22	80	71	95	9.7	51
	Significant difference.....	9						
D — 1950 results (6 replications)								
1	Ill. 1657.....	116	24	81	75	99	10.2	54
2	Ill. 1673.....	115	23	81	77	98	10.0	54
3	Ill. 1671.....	113	25	81	76	94	10.0	52
4	Ill. 1663.....	113	22	81	76	94	10.3	54
5	Ill. 1664.....	113	23	80	78	94	9.8	53

(Table is concluded on next page)

Table 13. — DOUBLE CROSSES OF ILLINOIS 448 MATURITY
— concluded

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height	
							Plant	Ear
D — 1950 results (6 replications) — concluded								
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>
6	Ill. 1661.....	113	27	79	82	97	10.1	56
7	Ill. 2234W.....	113	24	81	73	95	10.0	53
8	Ill. 2231W.....	112	21	80	78	96	10.0	54
9	Ill. 2239W.....	112	23	83	82	96	9.9	54
10	Ill. 1662.....	111	24	81	64	96	10.0	53
11	Ill. 2243W.....	111	23	82	77	99	9.6	50
12	Ill. 1539A.....	111	23	79	83	95	10.0	50
13	Ill. 2214W.....	110	24	83	76	97	9.9	52
14	Ill. 2226W.....	110	23	81	87	99	10.0	53
15	Ill. 1459.....	110	26	78	58	93	10.1	54
16	Ill. 2235W.....	109	23	82	92	98	9.8	51
17	Ill. 1567B.....	109	25	79	88	93	9.7	52
18	Ill. 1712.....	109	26	79	68	95	10.0	56
19	Ill. 1540.....	109	24	79	80	98	9.6	50
20	Ill. 1672.....	108	24	80	78	94	10.0	52
21	Ill. 1521B.....	108	24	78	83	96	9.8	51
22	Ill. 2230W.....	108	25	81	77	96	10.0	52
23	Ill. 1659.....	106	26	80	79	95	10.0	51
24	Ill. 2228W.....	105	25	79	72	94	9.9	52
25	Mo. 840.....	104	20	81	90	101	9.5	46
26	Ill. 1670.....	104	21	80	80	101	10.0	46
27	Ill. 2229W.....	104	25	80	83	96	10.0	51
28	Ill. 2159AW.....	104	24	80	92	93	9.6	52
29	Ill. 1445A.....	104	24	80	72	95	9.9	54
30	Ill. 1668.....	104	21	79	74	99	9.9	48
31	Ill. 201.....	104	19	82	70	93	9.7	48
32	U.S. 505.....	103	22	78	85	94	9.6	51
33	Ill. 1349.....	103	24	80	61	96	10.0	52
34	Ill. 1641.....	103	19	80	90	87	9.4	43
35	Ill. 200.....	103	20	81	73	96	10.2	54
36	Mo. 804.....	103	24	78	73	93	10.0	55
37	Ill. 1541A.....	101	22	78	83	94	10.0	50
38	Ill. 1721.....	101	23	79	88	93	9.8	54
39	Ill. 1667.....	100	20	81	95	93	9.6	44
40	Ill. 2225W.....	100	25	78	73	89	10.0	55
41	U.S. 13.....	100	21	80	70	101	9.5	50
42	Ill. 1666.....	98	21	80	81	96	9.2	44
43	Mo. 800.....	98	23	78	74	86	10.3	55
44	Ill. 1332.....	96	19	82	83	93	9.6	46
45	Ill. 1337.....	95	21	80	79	100	9.2	45
46	Ill. 1515.....	92	20	80	87	95	9.1	43
47	Ill. 972A-1.....	92	19	80	93	92	9.6	46
48	Ill. 2216W.....	92	24	80	51	95	10.0	54
49	Ill. 1570.....	92	22	80	80	96	9.4	45
50	Ill. 1669.....	91	19	80	90	99	9.2	46
	Average.....	105	23	80	78	95	9.8	51
	Significant difference.....	10						

Table 14.—AVERAGE PERFORMANCE OF INBRED LINES AS MEASURED IN SINGLE CROSSES^a

(Comparisons can be made only within each section)

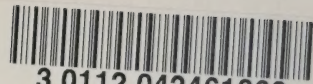
Rank in yield	Inbred line	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height		Prematurely dead plants
							Plant	Ear	
A — Ohio M15 maturity (summarized from Table 3A)									
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>	<i>perct.</i>
1	MS24A.....	65	19	82	88	96	6.9	28	....
2	B8.....	64	18	82	98	97	7.4	34	....
3	W70.....	63	21	81	89	96	8.1	35	....
4	Oh51A.....	62	18	81	96	97	7.5	32	....
5	A295.....	62	18	79	94	97	7.6	35	....
6	A277.....	62	19	79	95	98	7.7	33	....
7	M14.....	59	20	79	96	97	7.5	31	....
8	A73.....	59	19	80	99	96	7.2	32	....
9	R53.....	58	18	81	95	94	6.8	27	....
	Average.....	62	19	80	95	96	7.4	32	....
	Significant difference...	2							
B — Ill. 21 or Iowa 4059 maturity (summarized from Table 6A)									
1	W22.....	82	..	..	..	101	7.6	30	....
2	R61.....	79	..	..	..	99	7.7	33	....
3	Oh43.....	79	..	..	..	99	7.3	26	....
4	WF9.....	78	..	..	..	98	7.8	31	....
5	L205.....	78	..	..	..	100	7.5	31	....
6	R2.....	77	..	..	..	97	7.9	32	....
7	187-2.....	77	..	..	..	99	7.9	34	....
8	R66.....	76	..	..	..	97	7.6	33	....
9	M14.....	70	..	..	..	98	7.5	28	....
10	R67.....	62	..	..	..	98	7.1	29	....
	Average.....	76	..	..	..	99	7.6	31	....
	Significant difference...	3							
C — Ill. 21 or Iowa 4059 maturity (summarized from Table 7A)									
1	L205.....	54	30	76	100	97	7.9	31	....
2	Oh5.....	54	27	74	100	100	8.1	33	....
3	M14.....	51	29	74	99	100	7.8	30	....
4	WF9.....	49	33	73	99	99	7.9	31	....
5	Oh45.....	49	39	72	100	100	8.0	29	....
6	B35.....	47	35	73	99	99	7.9	33	....
7	W146.....	47	32	71	99	99	7.6	30	....
8	187-2.....	44	32	72	99	99	8.0	36	....
9	K237.....	44	31	72	100	98	7.8	32	....
10	K159.....	39	42	70	100	99	8.1	37	....
	Average.....	48	33	73	100	99	7.9	32	....
	Significant difference...	2							
D — Ill. 21 or Iowa 4059 maturity (summarized from Table 8)									
1	Oh45.....	110	19	82	87	94	...	..	1.5
2	M14.....	100	18	83	84	94	...	..	14.7
3	WF9.....	99	18	82	81	91	...	..	3.6
4	K237.....	99	18	81	90	90	...	..	.2
5	K159.....	99	18	83	81	94	...	..	2.6
6	B35.....	98	18	83	50	92	...	..	12.6
7	W146.....	98	17	83	81	92	...	..	13.8
8	187-2.....	97	19	83	59	92	...	..	10.2
9	Oh5.....	97	17	82	74	91	...	..	27.8
10	L205.....	97	19	82	80	88	...	..	9.4
	Average.....	99	18	82	77	92	...	..	10.0
	Significant difference...	2							

(Table is concluded on next page)

Table 14.—AVERAGE PERFORMANCE OF INBRED LINES
AS MEASURED IN SINGLE CROSSES^a — concluded

Rank in yield	Inbred line	Acre yield	Mois- ture in grain	Shelling	Erect plants	Stand	Height		Prematurely dead plants
							Plant	Ear	
E — U.S. 13 maturity (summarized from Table 10A)									
		<i>bu.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>perct.</i>	<i>ft.</i>	<i>in.</i>	<i>perct.</i>
1	Hy2.....	110	18	82	76	99	9.3	46	....
2	L317.....	107	19	81	54	98	9.8	52	....
3	R64.....	103	20	82	68	98	9.6	47	....
4	Oh29.....	103	18	80	76	98	9.6	45	....
5	38-11.....	101	18	81	73	97	9.6	48	....
6	K214.....	101	16	82	59	91	9.9	55	....
7	R65.....	98	19	81	44	95	9.7	48	....
8	K171.....	94	18	79	70	94	9.8	53	....
9	W102.....	93	18	82	63	94	8.9	41	....
10	WF9.....	93	18	82	86	96	8.7	36	....
	Average.....	100	18	81	67	96	9.5	47	....
	Significant difference...	5							
F — U.S. 13 maturity (summarized from Table 11)									
1	H10.....	127	18	83	..	..	..	..	....
2	Oh41.....	126	20	80	..	..	..	..	....
3	38-11.....	126	19	83	..	..	..	..	....
4	R65.....	124	19	82	..	..	..	..	....
5	C103.....	122	20	80	..	..	..	..	....
6	R61.....	122	19	82	..	..	..	..	....
7	Hy2.....	120	19	82	..	..	..	..	....
8	WF9.....	120	18	82	..	..	..	..	....
9	R64.....	119	20	82	..	..	..	..	....
10	Oh29.....	118	18	79	..	..	..	..	....
11	B10.....	118	18	78	..	..	..	..	....
	Average.....	122	19	81	..	..	..	..	....
	Significant difference...	3							
G — Ill. 448 maturity (summarized from Table 12A)									
1	Cl21E.....	124	26	78	84	94	10.1	48	....
2	C103.....	119	22	77	94	94	9.9	47	....
3	38-11.....	119	21	79	86	96	9.8	50	....
4	K201.....	119	26	78	84	94	9.7	50	....
5	Oh7.....	114	21	81	91	94	9.7	46	....
6	Oh41.....	113	24	78	85	97	9.3	47	....
7	K155.....	112	23	78	87	92	9.9	50	....
8	H10.....	111	21	82	94	95	10.1	49	....
9	B10.....	111	22	77	75	94	9.8	46	....
10	Hy2.....	107	21	81	86	91	9.2	46	....
	Average.....	115	23	79	87	94	9.8	48	....
	Significant difference...	2							

^a Calculated for each inbred by averaging the performance of single crosses in which it was one of the parents.



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